

AMENDMENT NO. 1 NOVEMBER 2020

TO

IS 401 : 2001 PRESERVATION OF TIMBER — CODE OF PRACTICE

(*Fourth Revision*)

(Page 1, clause 3.3.1, line 2) — Delete ‘gamma-benzeene hexachloride’.

(Page 1, clause 3.3.2) — Substitute the following for the existing clause:

‘3.3.2 Water-soluble (Fixed) Type

Acid-cupric-chromate composition, ammoniacal copper-arsenite composition, borated copper-chrome-arsenic composition, copper-chrome-arsenic composition, copper-chrome-boron composition, zinc-copper-borate composition (ZiBOC) and zinc-meta-arsenite.’

(Page 2, clause 4.3.5) — Delete.

(Page 2, clause 4.4.7) — Insert the following new clause at the end:

‘4.4.8 Zinc Copper Borate (ZiBOC)

This preservative comprises zinc chloride ($ZnCl_2$), borax ($Na_2B_4O_7 \cdot 10H_2O$) and copper sulphate ($CuSO_4 \cdot 5H_2O$). This preservative can be used for exterior as well as interior applications.

NOTE — For detailed information on the above preservative, Forest Research Institute, Dehradun may be consulted.’

(Page 9, clause D-2, Title) — Substitute the following for the existing:

‘D-2 ACID-CUPRIC-CHROMATE COMPOSITION, AMMONIACAL-COPPER-ARSENITE COMPOSITION, BORATED-COPPER-CHROME-ARSENIC COMPOSITION, COPPER-CHROME-ARSENIC COMPOSITION AND ZINC-COPPER-BORATE COMPOSITION’

(Page 10, clause **D-5.3**) — Insert the following new clause at the end:

‘D-6 METHOD FOR DETECTION OF ZINC IN ZIBOC

D-6.1 Preparation of Reagents

Prepare about 200 ml of each of the following stock solutions and keep them separate until use:

- a) Potassium ferricyanide solution, one percent (w/v).
- b) Potassium iodide solution, two percent (w/v).
- c) Soluble starch solution, five percent; boil until starch is in solution. Freshly prepared solution shall be used each time.

D-6.2 Test

Mix 10 ml each of the three stock solutions and pour into an atomizer. Spray the solution on the reasonably dry boring or cross-section of the timber to be tested.

D-6.3 Reaction

The material treated with the preservative turns deep blue instantly while the untreated material or part retains the original colour.’

(Pages 12 to 14, Table 2) — Insert in column (5) and column (6) against Group 1 to Group 7 as follows:

Table 2 Recommended Practices for Preservation

(Clause 8.2)

Group	Service Condition of Treated Timber	Commodity	Process of Treatment	Preservative (see also 4)	Recommended Absorption kg/m ³	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Timber in direct contact with ground or water especially in outside location	Sleepers (other than railway sleepers)	Hot and cold process (if applicable), and pressure processes (preferable)	d) ZIBOC	12 to 14	
3	Timber not in direct contact with ground or water but exposed	Bridge timber, shingles, scaffoldings, ladders, etc	Pressure processes	d) ZIBOC	8 to 10	
3	Timber not in direct contact with ground or water but exposed and in addition given a coat of paint or varnish regularly	Weather boards, fence rails, exterior doors, windows, etc	Hot and cold process (if applicable), and pressure processes (preferable)	h) ZIBOC	7 to 8	
4	Building timber for internal use but in contact with ground, soil or under humid conditions	Doors, frames, ceiling, timber columns, pole support, etc	Hot and cold process (if applicable), \ diffusion treatment of green timber and pressure processes	h) ZIBOC	6.5	

Table 2 (Concluded)

Group	Service Condition of Treated Timber	Commodity	Process of Treatment	Preservative (see also 4)	Recommended Absorption kg/m ³	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
5	Building timber or timbers in interior use not in contact with ground and soil	a) Doors and windows, leaves, false ceiling, Purlins, pelmet, etc b) Furniture, cupboard, chicks, etc	Hot and cold process (if applicable), treatment of green timber and pressure processes	h) ZiBOC	4 to 6	
6	Timber for packing cases to be stored outside and exposed	Packing cases, pallets, ammunition boxes, cable drums, etc	Two liberal brush coats (solvent based) or diffusion treatment of green timber	c) ZiBOC	4	
7	Timber for packing cases to be stored inside or under cover	do	Hot and cold/pressure processes	h) ZiBOC	3 to 4	
		do	Brushing/spraying/dipping	j) ZiBOC	3 to 4	